

Attorney Docket No. SEL 253

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In Re Application of:
Hajime KIMURA
Serial No.: 09/837,105
Filed: April 18, 2001
For: Self-Light Emitting Device And
Electrical Appliance Using The Same
Examiner: Dalei Dong
Art Unit: 2879
Confirm No.: 9007

APPEAL BRIEF UNDER 37 C.F.R. 41.37

Mark J. Murphy
Attorney for Appellants

COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, LTD.
200 West Adams Street, Suite 2850
Chicago, Illinois 60606
(312) 236-8500

Customer No. 26568

May 11, 2007

TABLE OF CONTENTS

i. STATEMENT OF REAL PARTY IN INTEREST	3
ii. STATEMENT OF RELATED APPEALS AND INTERFERENCES	3
iii. STATUS OF CLAIMS	4
iv. STATUS OF AMENDMENTS	4
v. SUMMARY OF CLAIMED SUBJECT MATTER	4
vi. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL	10
vii. ARGUMENT	10
A. BACKGROUND	10
B. THE REJECTIONS OF THE CLAIMS SHOULD BE REVERSED	11
1. Combining References For An Obviousness Rejection	12
2. It Is Improper To Combine Ooi And Abe	14
3. The References Do Not Disclose All The Claimed Elements	17
C. CONCLUSION	18
viii. CLAIMS APPENDIX	20
ix. EVIDENCE APPENDIX	25
x. RELATED PROCEEDINGS APPENDIX	26

TABLE OF AUTHORITIES

Cases

<i>In Re Fine</i> , 837 F.2d 1071, 1074 5 USPQ2d 1596, 1599, 1600 (Fed. Cir. 1988).....	12, 13
<i>KSR Int'l Co. v. Teleflex, Inc</i> , No. 04-1350 (U.S. April 30, 2007).....	12, 13
<i>Dennison Mfg. Co. v. Panduit Corp.</i> , 475 U.S. 809, 810, 106 S. Ct. 1578 (1986).....	13
<i>Bausch & Lomb, Inc v Barnes-Hind/Hydrocurve, Inc</i> , 796 F.2d 443, 230 USPQ 416, 419-420 (Fed. Cir. 1986).....	13
<i>In Re Fritch</i> , 972 F.2d 1260, 1266 23 USPQ2d 1780, 1784 (Fed. Cir. 1992)	13
<i>In Re Oetiker</i> , 24 USPQ 2d 1443, 1444-1446, 1447 (Fed. Cir. 1992)	13
<i>MPEP 2143.01</i>	17

APPEAL BRIEF UNDER 37 C.F.R. §41.37

This Brief is in furtherance of the Notice of Appeal filed in this Application Serial No. 09/837,105 on March 14, 2007.

This appeal is in response to the Final Rejection of December 15, 2006 rejecting the pending claims of the present application.

The claims of the present application are clearly patentable over the cited references, as will be shown *infra*. Appellant respectfully requests the Board to so rule and allow the application.

i. STATEMENT OF REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee: Semiconductor Energy Laboratory Co., Ltd., 398, Hase, Atsugi-shi, Kanagawa-ken 243-0036 Japan.

ii. STATEMENT OF RELATED APPEALS AND INTERFERENCES

To the best of Appellant's, Appellant's legal representatives' and Assignee's knowledge, there are no appeals or interferences pending which will affect or be affected by the Board's decision in this appeal.

iii. STATUS OF CLAIMS

Claims 56-64 and 78-88 are pending in this application and have been rejected. Claims 2-55, 65-74 and 76 are withdrawn. Claims 1, 75 and 77 are cancelled. Claims 56-64 and 78-88 are the appealed claims and appear *infra* at p. 20 *et seq.*

iv. STATUS OF AMENDMENTS

No amendment after final has been filed in this application.

v. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with §41.37(c)(v), Appellant is providing the following concise explanation of the claimed subject matter. Appellant is providing examples of where each claim element is shown or discussed in the specification and drawings of the present application. These citations are merely examples, as the application may have further disclosure of these elements throughout the application.

The dependent claims are based, either directly or indirectly, on one of the independent claims, and accordingly, all the elements listed for the respective independent claims, and the support for these elements in the specification and drawings, are as mentioned herein. These dependent claims also add additional elements or limitations which are supported in the specification and drawings.

Independent Claim 56 is directed to a light emitting display device comprising:

a substrate (101; 301) (page 3, lines 4-5, Fig. 1A; page 6, lines 1-2, Figs. 3A, 4A);

a first electrode (103; 305, 306) formed over a first surface of the substrate (page 3, lines 5-7,

Fig. 1A; page 8, lines 9-10, Fig. 3B);

an EL layer (104; 309) formed over the first electrode (page 3, line 10, Fig. 1A; page 8, line

17, Fig. 3C);

a second electrode (105; 311) formed over the EL layer (page 3, lines 10-11, Fig. 1A; page 8, line 23, Fig. 3C); and

a light scattering body (108; 302) having a first surface and a second surface, formed on a second surface of the substrate, which is opposite to the first surface of the substrate (page 3, lines 14-17, Figs. 1A-1C; page 6, lines 1-8, Figs. 3A-4A),

wherein the first surface of the light scattering body is in contact with the second surface of the substrate (page 3, lines 14-17; page 6, lines 1-2; Figs. 1A-1C, 3A-3D, 4A),

wherein the second surface of the light scattering body is for scattering and extracting a light (page 6, lines 11-17; Fig. 4A), and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180° (page 6, lines 25-27; page 7, lines 1-4; Fig. 4A).

Independent Claim 78 is directed to a light emitting display device comprising:

a substrate (101; 301) (page 3, lines 4-5, Fig. 1A; page 6, lines 1-2, Figs. 3A, 4A);

a first electrode (103; 305, 306) formed over a first surface of the substrate (page 3, lines 5-7, Fig. 1A; page 8, lines 9-10, Fig. 3B);

an EL layer (104; 309) formed over the first electrode (page 3, line 10, Fig. 1A; page 8, line 17, Fig. 3C);

a second electrode (105; 311) formed over the EL layer (page 3, lines 10-11, Fig. 1A; page 8, line 23, Fig. 3C); and

a light scattering body (108; 302) having a first surface and a second surface, formed on a second surface of the substrate, which is opposite to the first surface of the substrate (page 3, lines 14-17, Figs. 1A-1C; page 6, lines 1-8, Figs. 3A-4A),

wherein the first surface of the light scattering body is in contact with the second surface of the substrate (page 3, lines 14-17; page 6, lines 1-2; Figs. 1A-1C, 3A-3D, 4A),

wherein the second surface of the light scattering body is for scattering and extracting a light (page 6, lines 11-17; Fig. 4A), and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180° (page 6, lines 25-27; page 7, lines 1-4; Fig. 4A), and

wherein the light scattering body is made of a different material from that of the substrate (page 3, lines 5-6; page 6, lines 1-5).

Independent Claim 82 is directed to a light emitting display device comprising:

a substrate (101; 301) having a first surface and a second surface which is opposite to the first surface (page 3, lines 4-5; Fig. 1A; page 6, lines 1-2, Figs. 3A, 4A);

a first electrode (103; 305, 306) formed over the first surface of the substrate (page 3, lines 5-7, Fig. 1A; page 8, lines 9-10, Fig. 3B);

an EL layer (104; 309) formed over the first electrode (page 3, line 10, Fig. 1A; page 8, line 17, Fig. 3C);

a second electrode (105; 311) formed over the EL layer (page 3, lines 10-11, Fig. 1A; page 8, line 23, Fig. 3C); and

a light scattering body (108; 302) having a first surface and a second surface, formed on the second surface of the substrate (page 3, lines 14-17, Figs. 1A-1C; page 6, lines 1-8, Figs. 3A-4A),

wherein the first surface of the light scattering body is in contact with the second surface of the substrate (page 3, lines 14-17; page 6, lines 1-2, Figs. 1A-1C, 3A-3D, 4A),

wherein the second surface of the light scattering body is for scattering and extracting a light (page 6, lines 11-17, Fig. 4A), and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180° (page 6, lines 25-27; page 7, lines 1-4, Fig. 4A),

wherein the first electrode comprises a transparent material, and the second electrode comprises a light shielding material (page 8, lines 9-22), and

wherein the light scattering body is a trapezoid (page 6, lines 7-8, Fig. 4A).

Claim 57 is dependent on claim 56 and recites that the first electrode (103; 305, 306) is electrically connected to a thin film transistor (102; 303, 304) (page 3, lines 5-8, Fig. 1A; page 8, lines 9-10, Fig. 3B).

Claim 58 is dependent on claim 56 and recites that the first electrode is an anode, and the second electrode is a cathode (page 3, lines 8-13; page 8, lines 22-23).

Claims 59 and 79 are dependent on Claims 56 and 78, respectively, and recite that the first electrode comprises a transparent material, and the second electrode comprises a light shielding material (page 8, lines 9-22).

Claim 60 is dependent on claim 56 and recites that the light scattering body comprises a transparent material (page 6, lines 1-7).

Claim 61 is dependent on claim 56 and recites that the light scattering body comprises one selected from the group consisting of polycarbonate, polyimide, BCB, indium oxide, and tin oxide (page 6, lines 1-7).

Claim 62 is dependent on claim 56 and recites that a thickness (H) of the light scattering body has a relation of $H \geq W_1$ with respect to a pitch (W_1) of the light scattering body (page 7, lines 9-10).

12).

Claims 63 is dependent on claim 56 and recites that a pixel pitch is at least twice as long as a pitch of the light scattering body (**page 7, lines 5-8**).

Claim 64 is dependent on claim 56 and recites that the self-light emitting device is incorporated into one of selected from the group consisting of an EL display, a video camera, and a computer (**page 24, last line - page 25, line 6**).

Claims 80-83 are dependent on Claims 56, 78 and 82, respectively, and recite that a light emitted from the EL layer is extracted from a surface of the light scattering body into the air (**page 3, line 25 - page 4, line 1; page 6, lines 12-23; Figs. 1B, 4A**).

Claims 84 and 85 are dependent on claims 56 and 78, respectively, and recite that the light scattering body is a trapezoid (**page 6, lines 7-8; Fig. 4A**).

Claims 86-88 are dependent on claims 56, 78 and 82, respectively, and recite that the first electrode (103; 305, 306) is electrically connected to a TFT (102; 303, 304) (**page 3, lines 5-8, Fig. 1A; page 8, lines 9-10, Fig. 3B**).

vi. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following are the grounds for rejection presented for review:

1. Claims 56, 59-62, 64, 80, 82-84, 86 and 88 are rejected under 35 U.S.C. §103(a) as being unpatentable over Abe (US 6,617,784) in view of Ooi (US 5,206,746).
2. Claims 57 and 58 are rejected under 35 U.S.C. §103(a) as being unpatentable over Abe in view of Ooi and further in view of Jones (US 5,920,080).
3. Claim 63 is rejected under 35 U.S.C. §103(a) as being unpatentable over Abe in view of Ooi and further in view of Shibata (US 69,147,451).
4. Claims 78, 79, 81, 85 and 87 are rejected under 35 U.S.C. §103(a) as being unpatentable over Abe in view of Ooi and further in view of Duggal (US 6,777,871).

vii. ARGUMENT

A. BACKGROUND

The present application is directed to a light emitting device for improving extraction efficiency of light produced in the inside of an EL (electroluminescence) element/layer when planar light emission is extracted by supplying current to the EL element/layer.

One of the problems found with prior devices is that while light emitted from a self-light emitting device is extracted as planar light emission into the air, much of the light cannot be extracted from the inside of the substrate since a substrate positioned at an interface between the self-light emitting device and the air has a flat plate shape and its extraction efficiency is only 20 to 50%.

The present invention was designed to solve this problem and improve the extraction efficiency of light produced in a light emitting element. The present invention improves efficiency

by forming a light scattering body on the opposite surface (than where the EL layer is formed) of a substrate. The light scattering body has a first surface and a second surface with the first surface in contact with the surface of the substrate and the second surface for scattering and extracting light. The inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180°. This produces an improved light emitting display device which has a greater extraction efficiency than prior devices.

Appellants will now address the pending rejections of the claims of the Final Rejection of December 15, 2006.

B. THE REJECTION OF THE CLAIMS SHOULD BE REVERSED

In the Office Action, the Examiner rejects each of the pending claims under 35 U.S.C. §103(a) as being unpatentable over the combination of Abe (U.S. 6,617,784) in view of Ooi (U.S. 5,206,746), with or without additional references.

More specifically, with respect to independent Claims 56 and 82, the Examiner contends that Abe discloses all the limitations of these claims except the Examiner admits that Abe does not disclose the features of the inner angle between the light scattering body and the second surface is not less than 60 degrees and is less than 180 degrees (Claims 56 and 82) and that the light scattering body is a trapezoid (independent Claim 82 and Claims 84, 85). The Examiner, however, cites Ooi for allegedly curing these deficiencies in Abe and contends that Ooi discloses a light scattering element having an inner angle between the light scattering body and the second surface is not less

than 60 degrees and is less than 180 degrees and that the light scattering body is a trapezoid.

With regard to independent Claim 78, the Examiner contends that Abe discloses all the limitations of this claim except the Examiner again admits that Abe does not disclose the features of the inner angle between the light scattering body and the second surface is not less than 60 degrees and is less than 180 degrees, and that the light scattering body is made of a different material from the substrate. The Examiner, however, again cites Ooi for allegedly curing the first of these deficiencies in Abe and relies upon Duggal (U.S. 6,777,871) for allegedly curing the deficiency in Abe and Ooi.

These rejections are improper as it is not proper to combine Able and Ooi to arrive at the claimed invention, and even if it were proper to combine these references, the combination still fails to disclose or suggest all of the elements of the claims of the present application.

1. Combining References For An Obviousness Rejection

In order to combine references, or modify a reference for a §103 obviousness rejection, a reason must be provided that would have prompted one skilled in the art to combine the elements in the way the claimed new invention does. KSR Int'l Co. v. Teleflex, Inc., No. 04-1350, slip opinion at p. 15 (U.S. April 30, 2007). A teaching, motivation or suggestion to support the combination or modification of the references is a factor and helpful insight to consider in the obviousness rejection.

In re Fine, 837 F.2d 1071, 5 USPQ 2d 1596, 1599 (Fed. Cir. 1988), KSR, slip opinion at p. 15. However, “one cannot use hindsight reconstruction to pick and choose among isolated disclosures in

the prior art to deprecate the claimed invention.” In re Fine, 5 USPQ 2d at 1596, 1600. Indeed, the Supreme Court cautions against hindsight. Dennison Mfg. Co. v. Panduit Corp., 475 U.S. 809, 810, 106 S. Ct. 1578 (1986) (“...in addressing the question of obviousness a judge must not pick and choose isolated elements from the prior art and combine them so as to yield the invention in question of such a combination would not have been obvious at the time of the invention”); KSR, slip opinion at 17 (be aware of distortion caused by hindsight bias and be cautious of *ex post* reasoning). This prohibition is still valid under the recent Supreme Court case, KSR Int’l Co. v. Teleflex, Inc. Such a hindsight technique is still improper and differs from the use of common sense referenced in KSR. It is still the law that the Examiner must consider the entire teaching in the references and cannot pick and choose among isolated teachings in the references to the exclusion of the other teachings in the reference. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 230 USPQ 416, 419-420 (Fed. Cir. 1986). To consider less than the entire teaching is to engage in improper hindsight reconstruction. Id. Such an analysis would clearly not be based on common sense.

A *prima facie* case of obviousness cannot be based on a combination of references wherein the combination of references is based on hindsight reconstruction using the claimed invention as a template. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); In re Oetiker, 24 USPQ 2d 1443, 1447 (Fed. Cir. 1992). Cf. Dennison, *supra*; KSR, *supra*. Combining references in a manner that reconstructs the applicant’s invention only with the benefit of hindsight is insufficient to present a *prima facie* case of obviousness. In re Oetiker, 24 USPQ 2d at 1444-1446.

In the present case, there is no teaching, suggestion or reason for combining the references as in the rejections in the Final Rejection to arrive at the claimed invention other than by hindsight reconstruction, using the independent claims of the present application as a blueprint. The Examiner must identify some rational reason to combine the references. Such reasoning and combination, however, cannot be contrary to the teachings in the references. The rejections and combination of references in the Final Rejection are not based on common sense. Instead, as explained below, the combination disregards, and is contrary to, the actual teachings in the references to arrive at the pending rejections.

As explained in detail below, because there is no motivation or rational reason to combine references and the combination of references is based on hindsight reconstruction, a *prima facie* case of obviousness has not been established, and the rejections are improper.

2. It Is Improper To Combine Ooi And Abe

The claimed invention of the appealed claims of the present application is directed to a light emitting display device comprising a substrate with a first surface and a second surface, and a light scatter body with a first surface and a second surface. An EL element is formed over the first surface of the substrate (see e.g. Figs. 3C, 3D) and the light scattering body is in contact with the second surface of the substrate, and in particular, the first surface of the light scattering body is formed on and in contact with the second surface of the substrate. The second surface of the light scattering body is for scattering and extracting a light. This is shown, for example, in Fig. 4A. Applicant is

including, for illustration purposes, a marked-up copy of Fig. 4A to show the first and second surfaces of the light scattering body.¹ Therefore, in the present and claimed invention, the light scattering body (for example 302a in Fig. 4A) is structured and designed to scatter and extract light (the second surface of the light scattering body is especially for extracting light) from the substrate side of the device.

In contrast to the claimed invention, Ooi is directed to a reflection type device (e.g. col. 5, lines 48-49 in Ooi) which is disposed so as to face the top portion (i.e. a second surface) of the prism (2, 12, i.e. a scattering body) as shown in Figs. 1 and 2. Hence, Ooi discloses that a first surface (7, 17) of the light scattering body (2, 12) is in contact with an optical element (1, 11, 41), and that a second surface (4A, 14A, 44A) of the light scattering body is used for scattering and absorbing a light (50A-E) which is entered from observer's side (3, 13) and is used so that a light (50G, 60) from the illumination means (8, 18) enters into the light scattering body from the second surface (4A, 14A, 44A) of the light scattering body, not from the observer's side (see e.g. Figs. 1, 2, 5, 6). The Examiner appears to have disregarded this disclosure in Ooi.

As a result, the light scattering body in Ooi is intended to *scatter and absorb light* (which is the purpose of 5A, 5B at the tip of the prism 2 in Fig. 1 in Ooi) or allow light to *enter*. As shown in Fig. 5 in Ooi, light from the substrate side is either reflected (50I) or absorbed (50E), not extracted. Light from the opposite side (50G) from the substrate is let in, not extracted. This creates the bright

¹ This illustration was filed and made of record in this application with the amendment of November 3, 2006.

display Ooi is trying to achieve. Hence, this device is for absorbing, reflecting or letting in light. It is not for extracting light as in the claimed invention and would not be used for extracting light.

Thus, the light scattering body of Ooi is very different than the claimed invention, as explained above. The light scattering body of Ooi is also very different than Abe.

With regard to Abe, for example, Abe states that the device of the invention of the patent can effectively intensify light emitted in the normal line direction from the light-emitting surface and increase the luminance in the wide observation angle range (the stated objective of the patent, see col. 1 of Abe), because the back surface (12) of the prismatic film (1) and the light-emitting surface of the EL device (9) are “closely bonded optically.” “The prismatic film (1) and EL device (9) being ‘closely bonded optically’ means that no air layer, which functions to decrease the amount of light which emitted from the EL device and reaches the prismatic film, is present between them.” Abe, Col. 2, Ins. 5-17. There is no disclosure in Abe of the absorbing and letting in of light function of Ooi.

Further, not only does Abe not disclose an inner angle between the light scattering body and the second surface that is not less than 60° and is less than 180, but Abe provides no discussion or suggestion of any angle between these two surfaces. In fact, in Fig. 1 of Abe, there is no inner angle between the light scattering body and the second surface (other than the fact that the prismatic film (1) appears to lay flat on light emitting surface (91)). Further, there is no recognition in the reference of the problems/drawbacks of prior devices with regard to extraction nor any reference to a specific inner angle, as in the claimed invention. Hence, one skilled in the art could not combine Abe with

Ooi to arrive at the claimed invention.

Therefore, one skilled in the art would never look at Ooi to achieve the device of the present invention since Ooi absorbs and reflects light, and is not designed or made for extracting light. The Examiner, however, has disregarded this teaching in Ooi. Further, one skilled in the art would never take the structure of Ooi and combine it with Abe to arrive at the claimed invention, as the combination of the two would result in light being absorbed, not extracted. In fact, it would be contrary to common sense and contrary to any reason to utilize an object made for absorbing light and not for extraction, for the purpose of extracting light. Further, the teachings of the two references function in a contrary fashion. To change Ooi to an extraction device is to defeat the purpose of the device and the teachings in the reference. This is improper. See e.g. MPEP 2143.01.

Accordingly, there is no motivation or reason for one skilled in the art to combine Ooi with Abe to arrive at the claimed invention. The only way these references can be combined is by hindsight reconstruction using the claims as a blue print to pick and choose teachings in Ooi while disregarding other contrary teachings in the reference. This is clearly improper, and any rejection based thereon must be reversed.

3. The References Do Not Disclose All The Claimed Elements

As explained above, Abe does not disclose many of the claimed elements.

Ooi fails to disclose that the first surface of the scattering body is adjacent to the light emitting element by contacting the first surface with the second surface of the substrate, and the

second surface of the scattering body in Ooi is used for extracting a light of the light emitting element from the second surface of the scattering body into the air (i.e. observer's side). Therefore, Ooi does not disclose or suggest the claimed features of the first surface of the light scattering body is in contact with the second surface of the substrate and the second surface of the scattering body is for scattering and extracting a light.

Therefore, even if it were proper to combine Abe and Ooi, the references still fail to disclose or suggest the device of independent Claims 56, 78 and 82. Accordingly, it is respectfully requested that these rejections be reversed.

C. CONCLUSION

For at least the reasons stated above, Appellant earnestly and respectfully submits that the rejections in the Final Rejection are improper. Further, the references do not disclose all the elements of independent Claims 56, 78 and 82. Therefore, there is no *prima facie* case of obviousness and the claims are patentable over the references.

Therefore, the rejections of the claims should be reversed, and the appealed claims allowed.

Accordingly, Appellant requests that this Appeal be sustained in all respects, and that all rejections in the Final Rejection be reversed.

Respectfully submitted,

Mark J. Murphy/

Mark J. Murphy, Registration No. 34,225

COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, LTD.
200 West Adams Street, Suite 2850
Chicago, Illinois 60606
Customer No. 00026568

May 11, 2007

viii. CLAIMS APPENDIX

In accordance with 37 CFR 41.37(c)(1)(viii), the text of the claims on appeal is as follows:

56. A light emitting display device comprising:

a substrate;

a first electrode formed over a first surface of the substrate;

an EL layer formed over the first electrode;

a second electrode formed over the EL layer; and

a light scattering body having a first surface and a second surface, formed on a second surface of the substrate, which is opposite to the first surface of the substrate,

wherein the first surface of the light scattering body is in contact with the second surface of the substrate,

wherein the second surface of the light scattering body is for scattering and extracting a light, and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180°.

57. A light emitting device according to claim 56, wherein the first electrode is electrically connected to a thin film transistor.

58. A light emitting device according to claim 56, wherein the first electrode is an anode, and

the second electrode is a cathode.

59. A light emitting device according to claim 56, wherein the first electrode comprises a transparent material, and the second electrode comprises a light shielding material.

60. A light emitting device according to claim 56, wherein the light scattering body comprises a transparent material.

61. A light emitting device according to claim 56, wherein the light scattering body comprises one selected from the group consisting of polycarbonate, polyimide, BCB, indium oxide, and tin oxide.

62. A light emitting device according to claim 56, wherein a thickness (H) of the light scattering body has a relation of $H \geq W_1$ with respect to a pitch (W_1) of the light scattering body.

63. A light emitting device according to claim 56, wherein a pixel pitch is at least twice as long as a pitch of the light scattering body.

64. A light emitting device according to claim 56, wherein the self-light emitting device is incorporated into one of selected from the group consisting of an EL display, a video camera, and a computer.

78. A light emitting display device comprising:

a substrate;

a first electrode formed over a first surface of the substrate;

an EL layer formed over the first electrode;

a second electrode formed over the EL layer; and

a light scattering body having a first surface and a second surface, formed on a second surface of the substrate, which is opposite to the first surface of the substrate,

wherein the first surface of the light scattering body is in contact with the second surface of the substrate,

wherein the second surface of the light scattering body is for scattering and extracting a light,

and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180°, and

wherein the light scattering body is made of a different material from that of the substrate.

79. A light emitting display device according to claim 78, wherein the first electrode comprises a transparent material, and the second electrode comprises a light shielding material.

80. A light emitting device according to claim 56, wherein a light emitted from the EL layer is extracted from a surface of the light scattering body into the air.

81. A light emitting device according to claim 78, wherein a light emitted from the EL layer is extracted from a surface of the light scattering body into the air.

82. A light emitting display device comprising:

a substrate having a first surface and a second surface which is opposite to the first surface;

a first electrode formed over the first surface of the substrate;

an EL layer formed over the first electrode;

a second electrode formed over the EL layer; and

a light scattering body having a first surface and a second surface, formed on the second surface of the substrate,

wherein the first surface of the light scattering body is in contact with the second surface of the substrate,

wherein the second surface of the light scattering body is for scattering and extracting a light, and

wherein an inner angle between the first surface of the light scattering body and the second surface of the light scattering body is not less than 60° and is less than 180°,

wherein the first electrode comprises a transparent material, and the second electrode comprises a light shielding material, and

wherein the light scattering body is a trapezoid.

83. A light emitting device according to claim 82, wherein a light emitted from the EL layer

is extracted from a surface of the light scattering body into the air.

84. A light emitting device according to claim 56, wherein the light scattering body is a trapezoid.

85. A light emitting device according to claim 78, wherein the light scattering body is a trapezoid.

86. A light emitting device according to claim 56, wherein the first electrode is electrically connected to a TFT.

87. A light emitting device according to claim 78, wherein the first electrode is electrically connected to a TFT.

88. A light emitting device according to claim 82, wherein the first electrode is electrically connected to a TFT.

ix. EVIDENCE APPENDIX

Marked-up copy of Fig. 4A of the present application. This illustration was made of record with the amendment of November 3, 2006.

x. RELATED PROCEEDINGS APPENDIX

None

Fig.4A

TFT side

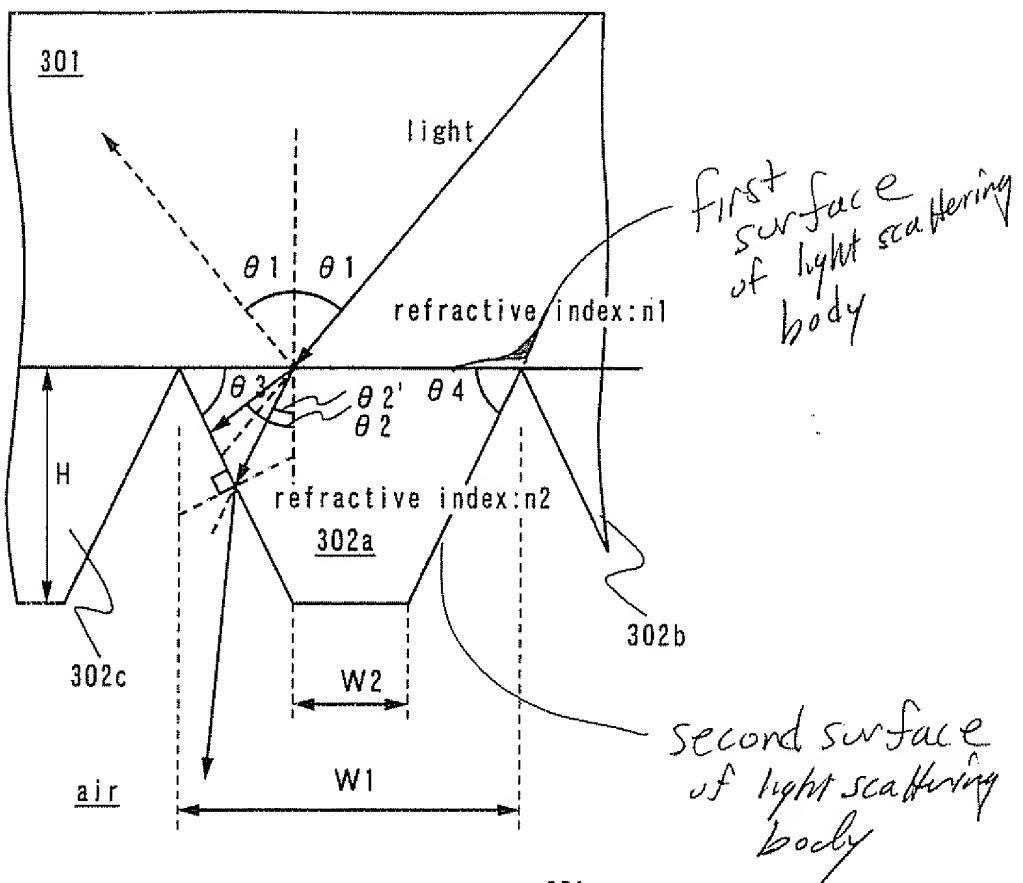


Fig.4B

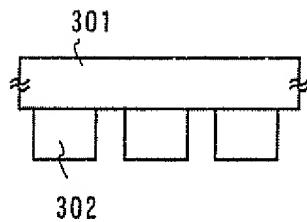


Fig.4E

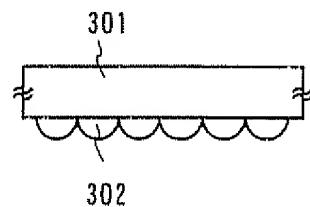


Fig.4C

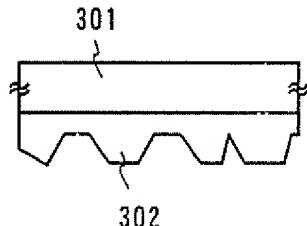


Fig.4F

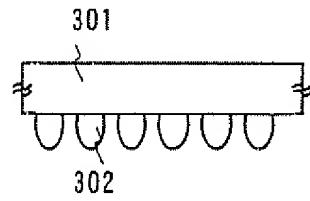


Fig.4D

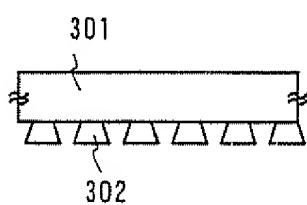


Fig.4G

